**Supplementary Table S1. Primer sequences for qRT-PCR.**

<table>
<thead>
<tr>
<th>No.</th>
<th>Symbol</th>
<th>Accession</th>
<th>Primers</th>
<th>Applications</th>
</tr>
</thead>
</table>
| 1   | Oct3/4 | NM_013633.2 | CTG AGG GCC AGG CAG GAG CAC GAG  
CTG TAG GGA GGG CTT CGG GCA CTT | Total Oct3/4 |
| 2   | Oct3/4 | NM_013633.2 | TCT TTC CAC CAG GCC CCC GCC TC  
TGC GGG CGG ACA TGG GGA GAT CC | Endogenous Oct3/4 |
| 3   | Sox2   | NM_011443.3 | GGT TAC CTC TTC CTC CCA CTC CAG  
TCA CAT GTG CAG CAG GAG CAG | Total Sox2 |
| 4   | Sox2   | NM_011443.3 | TAG AGC TAG ACT CCG GGC GAT GA  
TTG CCT TAA ACA AGA CCA CGA AA | Endogenous Sox2 |
| 5   | Klf4   | NM_010637.3 | CAC CAT GGA CCC GGG CGT GGC TGC CAG AAA  
TTA GGC TGT TCT TTT CCG GGG CCA CGA | Total Klf4 |
| 6   | Klf4*  | NM_010637.3 | GCG AAC TCA CAC AGG CGA GAA ACC  
TCG CTT CCT CTT CGG ACG ACA CA | Endogenous Klf4 |
| 7   | e-Myc  | NM_010849.4 | CAG AGG AGG AAC GAG CTG AAG CGC  
TTA TGC ACC AGA GTG TCG AAG CTG TTC G | Total e-Myc |
| 8   | e-Myc  | NM_010849.4 | TGA CCT AAG TCT GGC AGG AGC TGG AAT C  
AAG TTT GAG GCA GTT AAA ATT ATG GCT GAA GC | Endogenous e-Myc |
| 9   | Gapdh* | NM_008084.2 | AAC GGC ACA GTCA AAG GCC GA  
ACC CTT TTG GCT CCA CCC TT | Gapdh |
| 10  | Oct3/4 |          | TTG GGC TAG AGA AGG ATG TGG TTC  
TTA TCG TCG ACC ACT GTG CTG CTG | Oct3/4 transgene |
| 11  | Sox2   |          | GGT TAC CTC TTC CTC CCA CTC CAG  
TTA TCG TCG ACC ACT GTG CTG CTG | Sox2 transgene |
| 12  | Klf4   |          | GCG AAC TCA CAC AGG CGA GAA ACC  
TTA TCG TCG ACC ACT GTG CTG CTG | Klf4 transgene |
| 13  | e-Myc  |          | CAG AGG AGG AAC GAG CTG AAG CGC  
TTA TCG TCG ACC ACT GTG CTG CTG | e-Myc transgene |

* These two primers were designed in this study; remainas are followed Yamanaka’s description [24].
Supplementary Figure S1. Colony formation by using detergent pre-treated tEVs.

LLC derived tEVs (0.05 µg/µL) was incubated with 0.5% Triton X-100 for 5 h in 4°C. Then, we treated cells with detergent pre-treated tEVs (c), that amount was corresponding to untreated tEVs (100ng/mL) (e). As controls, cells were treated with untreated tEVs in the presence of 0.001% Triton X-100 (d) or 0.001% Triton X-100 (b). The detergent pre-treated tEVs are failed to induce the colony growth.
Supplementary Figure S2. Semi-quantitative reverse-transcription PCR analysis of the four transcription factors in indicated samples. The PCR products were the coding regions (Total), endogenous transcripts only (Endo.), and transgene transcripts only (tg). Genome DNA was used as positive control for transgene.
Supplementary Figure S3. Disseminated tumors by injection of miPS-LLCev cells. (A) The disseminated tumors result in abdominal bleeding of mice. (B) The disseminated tumors on mesentery.
**Supplementary Figure S4.** Cell morphology of miPS-LLCevPT and miPS-LLCevDT cell lines, which were established from primary tumor and disseminated tumor nodules, respectively.